

FIG. 1

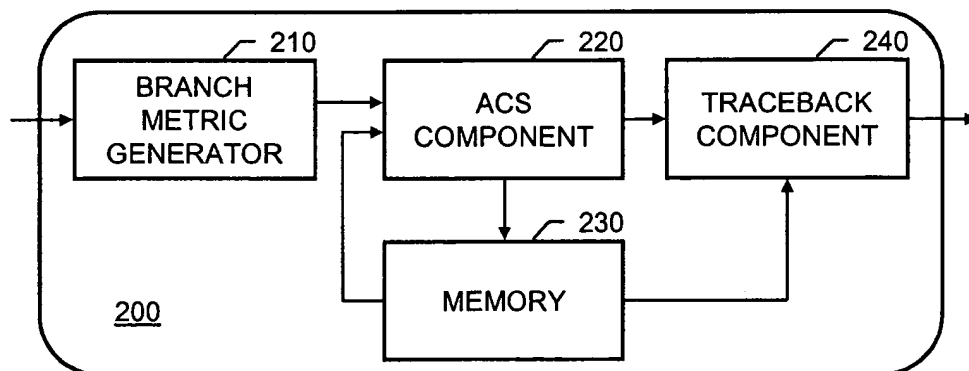
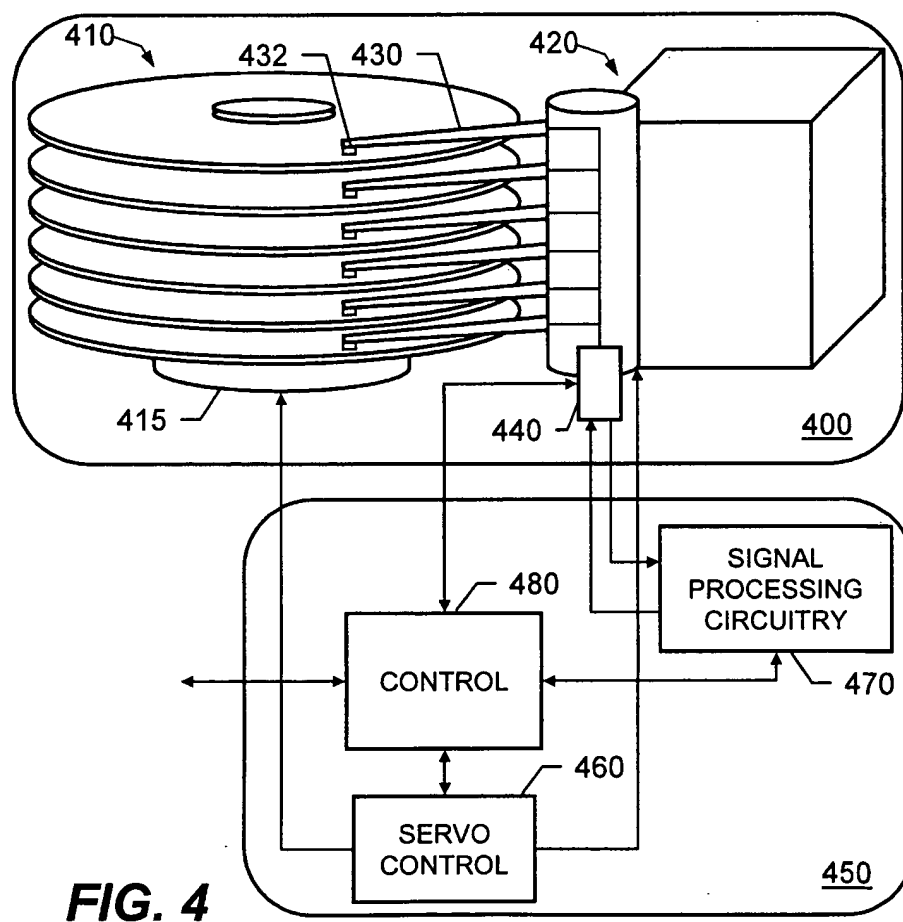
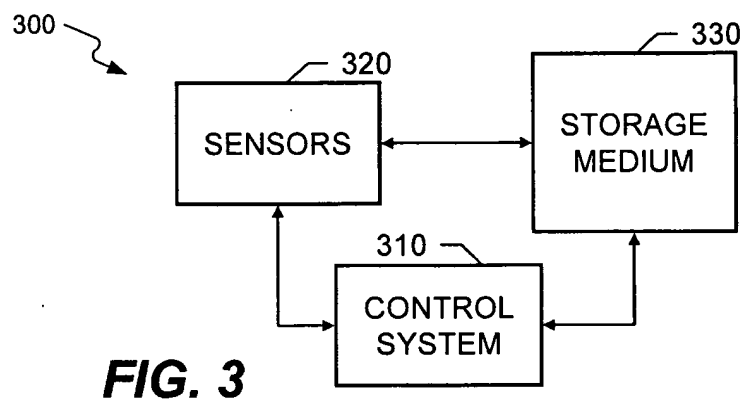
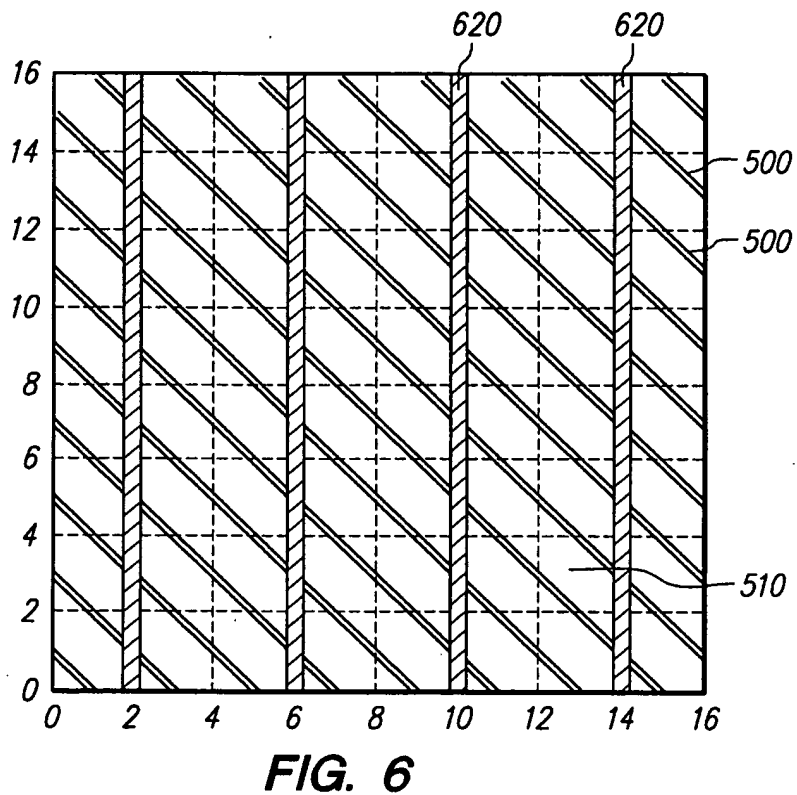
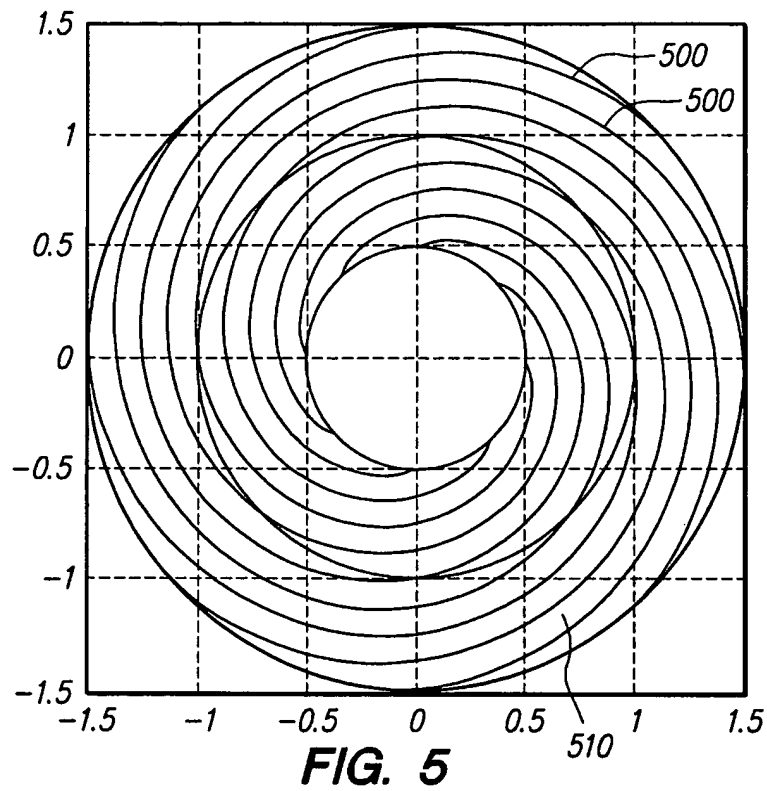


FIG. 2





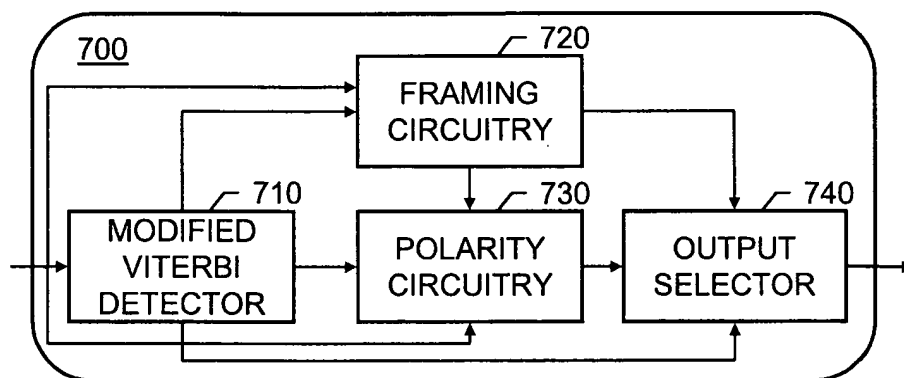


FIG. 7

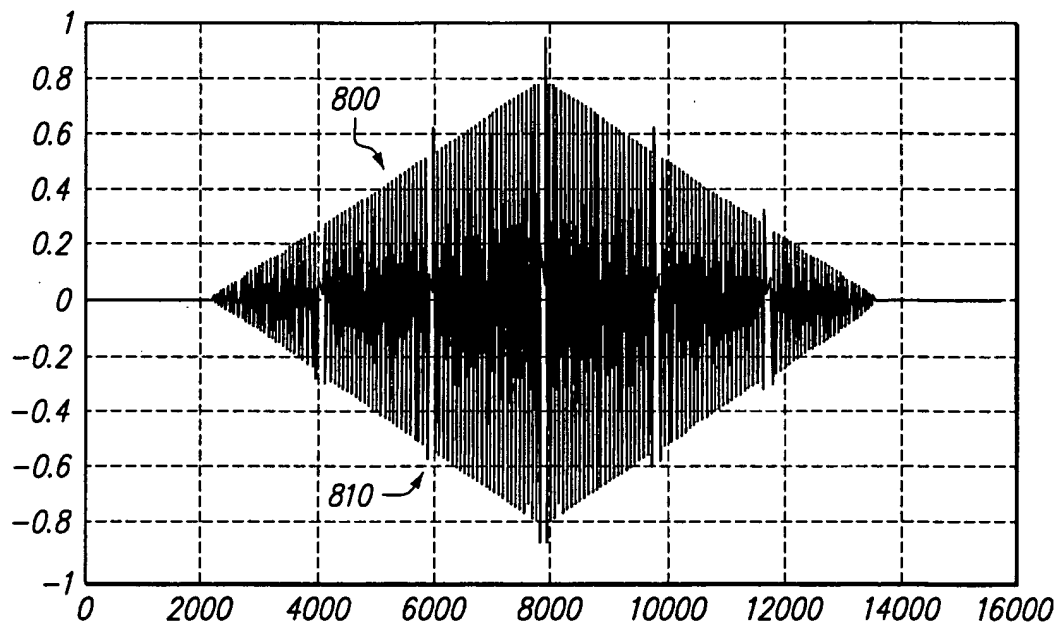


FIG. 8

900 **FIG. 9**

Previous Symbol	Current Symbol	State Transitions	Output Peaks	Outputs for Each Input Symbol	
				Peak sampling	Shoulder sampling
"0"(1100)	"0"(1100)	1100->1100	X0-0 +0-0	1,0,-1,0	1,1,-1,-1
"0"(1100)	"1"(0011)	1100->0011	X0-0 00+0	0,0,1,0	0,0,1,1
"1"(0011)	"0"(1100)	0011->1100	X0+0 00-0	0,0,-1,0	0,0,-1,-1
"1"(0011)	"1"(0011)	0011->0011	X0+0 -0+0	-1,0,1,0	-1,-1,1,1

FIG. 10

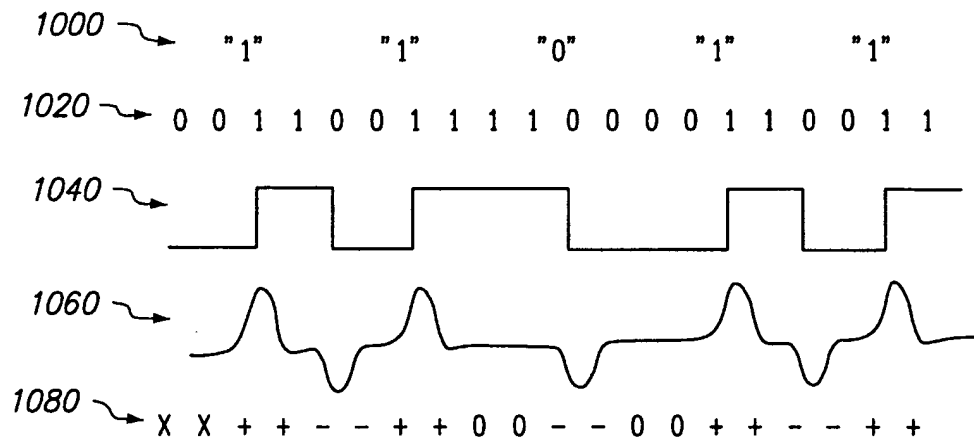
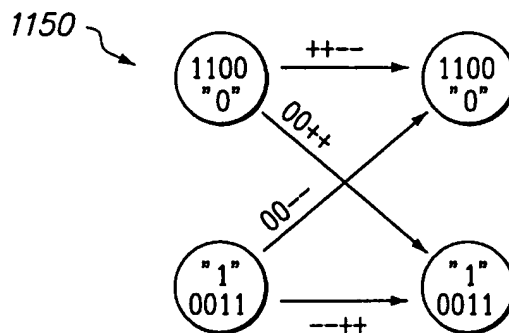


FIG. 11



1200 ↘

FIG. 12

Phase 0		Phase 1		Phase 2		Phase 3	
output	accumulator	output	accumulator	output	accumulator	output	accumulator
0	672	1	1036	1	2074	1	1215
0	672	1	1036	1	2074	0	1215
0	672	0	1036	1	2074	1	1215
0	672	1	1036	1	2074	0	1215
0	672	1	1036	1	2074	0	1216
0	672	1	1036	1	2075	0	1216
0	672	1	1037	1	2076	1	1216
1	673	0	1037	0	2076	0	1216
1	673	1	1037	1	2076	0	1216
0	673	1	1037	1	2076	0	1216
0	673	1	1037	1	2076	0	1216
0	673	1	1037	1	2076	0	1216
0	673	1	1037	1	2076	1	1216
0	673	0	1037	1	2077	1	1217
0	673	0	1037	1	2078	1	1217
0	673	0	1037	0	2078	0	1218
0	673	1	1037	1	2078	1	1218
0	673	1	1037	1	2078	0	1218
0	673	1	1037	1	2078	0	1218
0	673	1	1037	1	2078	1	1218
0	673	0	1037	1	2078	1	1218
0	674	0	1037	1	2079	1	1218
0	674	0	1038	1	2080	1	1218
1	675	0	1038	0	2080	0	1218
1	675	1	1038	1	2080	0	1218
0	675	0	1038	1	2080	1	1218
0	675	0	1038	1	2080	0	1218
0	675	1	1038	1	2080	0	1218
0	675	1	1038	1	2080	0	1219
0	675	1	1039	1	2081	0	1219
0	675	1	1039	1	2082	1	1219
1	676	0	1039	0	2082	0	1219
1	676	1	1039	1	2082	0	1219
0	676	1	1039	1	2082	0	1219
0	676	1	1039	1	2082	1	1219
0	676	1	1039	1	2082	0	1219
0	676	1	1039	1	2082	1	1219
0	676	0	1039	1	2083	1	1219
0	676	0	1040	1	2085	1	1219

1300 ↘

FIG. 13

Phase 0		Phase 1		Phase 2		Phase 3	
output	accumulator	output	accumulator	output	accumulator	output	accumulator
1	672	0	1036	0	2074	0	1215
1	672	0	1036	0	2074	1	1215
1	672	1	1036	0	2074	0	1215
1	672	0	1036	0	2074	1	1215
1	672	0	1036	0	2074	1	1216
1	672	0	1036	0	2075	1	1216
1	672	0	1037	0	2076	0	1216
0	673	1	1037	1	2076	1	1216
0	673	0	1037	0	2076	1	1216
1	673	0	1037	0	2076	1	1216
1	673	0	1037	0	2076	1	1216
1	673	0	1037	0	2076	1	1216
1	673	0	1037	0	2076	0	1216
1	673	1	1037	0	2077	0	1217
1	673	1	1037	0	2078	0	1217
1	673	1	1037	1	2078	1	1218
1	673	0	1037	0	2078	0	1218
1	673	0	1037	0	2078	1	1218
1	673	0	1037	0	2078	1	1218
1	673	0	1037	0	2078	0	1218
1	673	1	1037	0	2078	0	1218
1	674	1	1037	0	2079	0	1218
1	674	1	1038	0	2080	0	1218
0	675	1	1038	1	2080	1	1218
0	675	0	1038	0	2080	1	1218
1	675	1	1038	0	2080	0	1218
1	675	1	1038	0	2080	1	1218
1	675	0	1038	0	2080	1	1218
1	675	0	1038	0	2080	1	1219
1	675	0	1039	0	2081	1	1219
1	675	0	1039	0	2082	0	1219
0	676	1	1039	1	2082	1	1219
0	676	0	1039	0	2082	1	1219
1	676	0	1039	0	2082	1	1219
1	676	0	1039	0	2082	0	1219
1	676	0	1039	0	2082	1	1219
1	676	0	1039	0	2082	0	1219
1	676	1	1039	0	2083	0	1219
1	676	1	1040	0	2085	0	1219
1	676	1	1040	1	2085	1	1219

1400  **FIG. 14-1**

[illegible]

FIG. 14-2

44	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
45	_____XXXXXXXXXXXXXXXXXXXXX_____
46	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
47	_____XXXXXXXXXXXXXXXXXXXXX_____
48	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
49	_____XXXXXXXXXXXXXXXXXXXXX_____
50	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
51	_____XXXXXXXXXXXXXXXXXXXXX_____
52	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
53	_____XXXXXXXXXXXXXXXXXXXXX_____
54	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
55	_____XXXXXXXXXXXXXXXXXXXXX_____
56	_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
57	_____XXXXXXXXXXXXXXXXXXXXX_____
58	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
59	_____XXXXXXXXXXXXXXXXXXXXX_____
60	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
61	_____XXXXXXXXXXXXXXXXXXXXX_____
62	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____XX_____
63	_____XXXXXXXXXXXXXXXXXXXXX_____
64	_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
65	_____XXXXXXXXXXXXXXXXXXXXX_____
66	_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____
67	_____XXXXXXXXXXXXXXXXXXXXX_____
68	_____XXX
69	xxx_____
70	XXX_____
71	_____XXXXXXXXXXXXXXXXXXXXX_____
72	_____XXXXX_XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____

1500 ↗

FIG. 15-1

	64 sampling phases that cover a complete symbol duration with 16x over-sampling
1	_____
2	_____
3	_____
4	x _____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
5	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
6	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
7	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____ x _____
8	__ x _xxx _xxx
9	xx
10	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
11	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
12	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
13	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
14	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
15	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
16	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
17	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
18	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
19	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
20	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
21	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
22	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
23	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
24	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
25	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
26	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
27	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
28	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
29	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
30	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
31	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
32	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
33	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
34	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
35	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
36	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
37	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
38	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
39	xxxx _____
40	_xx
41	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
42	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
43	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____

FIG. 15-2

44		XXXXXXXXXXXXXXXXXXXXXXX	
45		XXXXXXXXXXXXXXXXXXXXXX	
46		XXXXXXXXXXXXXXXXXXXXX	
47		XXXXXXXXXXXXXXXXXXXX	
48		XXXXXXXXXXXXXXXXXXXX	
49		XXXXXXXXXXXXXXXXXXXX	
50		XXXXXXXXXXXXXXXXXXXX	
51		XXXXXXXXXXXXXXXXXXXX	
52		XXXXXXXXXXXXXXXXXXXX	
53		XXXXXXXXXXXXXXXXXXXX	
54		XXXXXXXXXXXXXXXXXXXX	
55		XXXXXXXXXXXXXXXXXXXX	
56		XXXXXXXXXXXXXXXXXXXX	
57		XXXXXXXXXXXXXXXXXXXX	
58		XXXXXXXXXXXXXXXXXXXX	
59		XXXXXXXXXXXXXXXXXXXX	
60		XXXXXXXXXXXXXXXXXXXX	
61		XXXXXXXXXXXXXXXXXXXX	
62		XXXXXXXXXXXXXXXXXXXX	
63		XXXXXXXXXXXXXXXXXXXX	
64		XXXXXXXXXXXXXXXXXXXX	
65		XXXXXXXXXXXXXXXXXXXX	
66		XXXXXXXXXXXXXXXXXXXX	
67		XXXXXXXXXXXXXXXXXXXX	
68		XX	
69	xxx		
70	xxxxxxxxxxxxxxxxxxxxxx		